

Claims:

70/32
1. A formula feed for administration to a human or animal, the formulation including active xanthine oxidoreductase (XOR).

5
2. A formula feed according to claim 1, which includes at least 50 μ g/ml active xanthine oxidoreductase.

70/31
3. A formula feed according to claim 1 or claim 2, in which the concentration of XOR exceeds the normal 10 physiological concentration of XOR.

4. A formula feed according to any one of claims 1 to 3, which includes up to 500 μ g/ml active xanthine oxidoreductase.

5. A formula feed according to claim 4, in which the 15 formulation includes from 50 to 150 μ g/ml of XOR.

70/42
6. A formula feed according to any one of claims 1 to 5, in which the formulation includes buttermilk, the buttermilk including active XOR.

7. A formula feed according to any one of claims 1 to 6, in which the formulation is in liquid form.

8. A formula feed according to any one of claims 1 to 7, the formulation further including one or more electron donors.

9. A formula feed according to any one of claims 1 to 8, the formulation further including one or more electron acceptors.

10. A formula feed according to any one of claims 1 to 9, which is suitable for feeding a human infant.

11. A combination product for use in the preparation 30 of a formula feed according to any one of claims 1 to 10, in which the product comprises two separate portions, the first portion including active XOR and the second portion

- 35 -

Cont A2
Sub A3
20/14 D
Sub A3 5

being sterilised and comprising substantially no active XOR.

12. A combination product according to claim 11, in which the second portion is in the form of a powder.

13. A combination product according to claim 11 or claim 12, in which the second portion has been heat treated.

14. A combination product according to any one of claims 11 to 13, in which the first portion has been 10 pasteurised.

15. A combination product according to any one of claims 11 to 14, in which the first portion is in a first container, and the second portion is in a second container.

16. A composition for use in the treatment of 15 gastrointestinal infection, the composition being suitable for addition to a formula feed, and the composition comprising active XOR in combination with one or more electron donors and/or one or more electron acceptors.

17. A composition according to claim 16, the 20 composition comprising buttermilk.

18. A composition according to claim 16 or claim 17, the composition being in the form of a powder.

19. A method of making a formula feed, the method comprising the step of adding a composition comprising 25 active XOR.

20. A method according to claim 19, the composition being according to any one of claims 16 to 18.

21. A method according to claim 19 or claim 20, the method comprising the steps of:

30 a. preparing a first portion of the formula feed, comprising a composition including active XOR; and

b. preparing a second portion of the formula feed, the first portion and second portion being separate from each other for subsequent mixing to form the formula feed.

22. A method according to claim 21, in which the 5 first portion comprises lyophilised buttermilk.

23. A method according to claim 21, in which the first portion comprises buttermilk that has been spray-dried at a temperature which is so selected that the activity of the XOR is at least substantially retained.

sub A6 10
24. A method according to any one of claims 21 to 23, in which the first portion has been subjected to a heat treatment step in which its temperature does not exceed 65°C.

25. A method according to claim 21 or claim 22, in 15 which the second portion comprises a sterilised feed composition.

26. A formulation for use in the treatment of 20 gastrointestinal infection, the formulation being suitable for administration as a feed and including active xanthine oxidoreductase.

27. Use of active XOR in the treatment of gastrointestinal (GI) infection.

28. Use of active XOR in the treatment of Scours disease.

29. Use of active XOR in the killing of bacteria.

30. Method of feeding a patient with enteral feed, in which the enteral feed includes active XOR.

31. Method of feeding an infant with formula feed, in which the formula feed includes active XOR.

32. A formulation comprising XOR substantially as described in Example 1 herein.

- 37 -

Sub B6

33. A formulation for use as a bactericidal agent in the human or animal digestive system, the formulation including active xanthine oxidoreductase (XOR).

34. A feed formulation according to claim 33, which 5 is suitable for use as an enteral feed.

35. A feed formulation according to claim 33, which is for use in the treatment of Scours disease.

10

add C7

add C3